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ABSTRACT

Ways to promote healthy child development are addressed in this essay. The following conditions conducive to identified: (1) an intact, cohesive, nuclear family; (2) a relationship with at least one parent or surrogate who is consistently loving and nurturing; (3) easy access to supportive family members; (4) a supportive community (neighborhood, religious, ethnic, political group, or other large group beyond the family that is helpful); and (5) some measure of predictability about the adult environment that permits gradual preparation to cope with it and take advantage of its real opportunities. The predicament of today's children is discussed, along with ways of meeting essential requirements for healthy growth, including prenatal care, primary health care, child care, parental competence, and multiple services through home visiting. Challenges for implementation are noted. Contains 44 references. (LB)

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A Decent Start: Promoting Healthy Child Development in the First Three Years of Life

by David A. Hamburg, President

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Carnegie Corporation of New York

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Carnegie Corporation of New York is a philanthropic foundation that was created by Andrew Carnegie in 1911 to "promote the advancement and diffusion of knowledge and understanding among the people of the United States." Subsequently, its charter was amended to permit the use of funds for the same purposes in certain countries that are or have been members of the British overseas Commonwealth. Its total assets at market value were about $829 million as of September 30, 1990.

A Decent Start: Promoting Healthy Child Development in the First Three Years of Life

Over extended years of growth and development, the human child experiences a prolonged period of immaturity and vulnerability — the longest of any known species. Much has to be acquired, much mastered, much tried and found wanting, much discovered and put to use. Overwhelmingly, this learning time is spent in close relationship with adults who offer nurturing love, protection, guidance, stimulation, and support. Coping abilities are acquired in a social context, largely through the sequence of observation, imitation, and practice as well as of exploration and discovery. Initially, a child depends almost entirely on the mother or other primary caregiver. After infancy, the child increasingly interacts with other relatives, with peers, and with some unrelated adults of the social group. This is the path our species has followed in becoming human over many millennia.

The first three years of life have always been crucial in human adaptation. They provide the fundamental elements for learning about the self, about others, about the wider world, about ways to cope with and solve the problems of living — all one needs to know to survive and flourish. Such adaptations, to be achieved successfully, must take place in the context of a secure attachment to a caring adult. An adult who is responsive to an infant's signals provides a safe base from which the child can explore the larger social and physical world. Exploration in turn facilitates cognitive development and friendly relations with other adults and peers.

These, then, are conditions that are conducive to meeting the basic requirements of healthy child development:

1) an intact, cohesive, nuclear family, dependable in the crunch;

Note: The president's annual essay is a personal statement representing his own views. It does not necessarily reflect the foundation's policies. The views expressed here are more fully developed in a forthcoming book by David A. Hamburg, to be published by Times Books, Random House, in 1992.

2) a relationship with at least one parent or surrogate who is consistently nurturing and loving;

3) easy access to supportive family members;

4) a supportive community, whether it be a neighborhood, religious, ethnic, political group, or other large group beyond the family that is helpful; and,

5) some measure of predictability about the adult environment that permits gradual preparation to cope with it and take advantage of its real opportunities.

THE PREDICAMENT OF TODAY'S CHILDREN

Most of our ancestors lived in contexts of very slow technological and social change. The family was the main locus for education — for economic and social activity, for mutual aid and preparation for adult life. There were many opportunities for children gradually to acquire adult skills and roles.

With the advent of the Industrial Revolution, however, the rate of innovation in Western Europe took off, creating profound transformations in the organization of economic, political, and social life, with psychological and other ramifications that continue to the present day. The ancient and powerful motivation of parents to do well by their children now occurs in a setting quite different from any that our ancestral parents knew. The mutual aid ethic, once a powerful reinforcement of family ties, is considerably weaker. The family has been pulled apart. Americans in 1991 are far more likely than in earlier times to postpone marriage, to bypass marriage altogether, to live alone, to end marriage by divorce, to work outside the home when their children are young, or to head a single-parent household (typically with no male present and very often no other adult person).

The change in regular patterns of contact between children and their adult relatives is remarkable. Not only are mothers home much less, there is little if any evidence that fathers are increasing their time with children. Only about 5 percent of American children see a grandparent regularly. The high mobility of families and the erosion of strong neighborhoods and other social supports have also taken their toll on the security and predictability of childhood.

In modern society, many parents are not able to provide the essential conditions for the healthy development of their children in the early years. The tragedies begin before birth, as some mothers fail to receive adequate prenatal care. Although our technical capacity to promote healthy births is greater than ever before, and the choices seem richer, parents too often lack access to resources, or they do not know how to obtain them. Most families depend on some version of child care, yet they have little guidance or ability to monitor the quality of that care. Arrangements are often erratic or otherwise unsatisfactory — frequently absent altogether. Unfortunately, to the extent that children are left to their own devices in growing up, dependent on television and immature peer relations, they are not likely to fare well. At the extreme, children who are badly neglected are unlikely to learn to care for others or build a constructive life.

Young people, in fact, are coming toward parenthood with less experience in the care of children than their predecessors had and with seemingly less control over the forces that shape their children's development. While much concern has been expressed for the families of very poor children, the difficulties have also grown to encompass the affluent sectors as the great social transformations under way have enveloped even them.

Such drastic changes in the structure and function of American families are posing a serious challenge for the well-being of children. Growing rates of child abuse and overt neglect are only the tip of the iceberg: we may be on the verge of an epidemic of *inadvertent* child neglect on a scale large enough to put the future of our society in jeopardy.

Most parents are deeply concerned about finding ways to ensure that their children grow up intact in this rapidly changing world. But if they cannot manage to do all that is necessary, how can they be strengthened in their vital growth-fostering role? What does it take to ensure that children grow up healthy and vigorous, inquiring and problem-solving, decent and constructive? What extra-familial influences can help to meet the developmental requirements of children? Can we illuminate a developmental sequence of experiences fostering healthy child development and ways to accomplish this sequence under contemporary American conditions? What motivation, information, skills, and professional services are highly beneficial? Is there a strong scientific and professional consensus on these questions?

What follows is a concise sketch of opportunities, experiences, interventions, and services that bear strongly upon healthy, constructive development in the first few years of life. Broad action on these fronts is well within the existing capability of many communities and could assure a solid foundation for healthy development.

MEETING THE ESSENTIAL REQUIREMENTS OF HEALTHY GROWTH AND DEVELOPMENT

Prenatal care

In the 1980s a series of integrative reports on the health of America's children emphasized the importance of prenatal care. The latest of these, based on a study conducted by the National Institutes of Health on behalf of the United States Public Health Service,[1] presents an important synthesis of the best available knowledge.

The report covers medical care, education, and social support services. At the heart of its inquiry are the essential medical practices that are needed, based on findings from biomedical research and clinical experience.

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[1] *Caring for Our Future: The Content of Prenatal Care.* Report of the Public Health Service Expert Panel on the Content of Prenatal Care, Public Health Service, U.S. Department of Health and Human Services. Washington, D.C.: Public Health Service, U.S. Department of Health and Human Services, 1989.

The broad objectives of prenatal care, as outlined in the report, are to promote the health and well-being of the pregnant woman, the infant, and the family up to one year after the infant's birth. Four aspects of prenatal care are considered essential: early and continuing risk assessment; health promotion; psychosocial and medical interventions; and follow-up.

Education for health should begin with the prospective mother, before a child is even conceived. In most cases, to bear a healthy baby, a woman must have been healthy in the first weeks of pregnancy, often before obstetrical care has begun. That is one reason why planning a pregnancy is important. This orientation points especially to the need for inculcating healthy practices in young adolescents when sexual activity is beginning. As it is, pregnancy is often occurring without anything remotely like adequate preparation. Schools can educate the young in the life sciences, in the importance of prenatal care, and in parenting as well as provide a wider sense of life choices for disadvantaged young women.

Once a young woman becomes pregnant, early and continuing risk assessment by the prenatal care provider is important. The elements of risk assessment include taking a complete history, a physical examination, laboratory tests, and assessment of fetal growth and wellness. The specific content and timing of prenatal care should depend on the risk status of the woman and her fetus. It is essential that risk assessment continue throughout pregnancy, because risk status may change. Generally more frequent visits to the provider need to be made early in pregnancy so that needs can be identified and interventions begun, including referrals to other physicians as needed.

Beyond the traditional medical concerns of preventing sickness and death of the developing fetus and mother, the prenatal care providers should educate future parents in healthful behaviors, family planning, general knowledge of pregnancy and parenting, positive family relationships, and child development as well as care of the newborn. Interventions at this stage include not only the treatment of illness but the modification of unhealthy behaviors. There is broad consensus that pregnant women *must* be informed about the risks to the fetus of smoking, alcohol consumption, and cocaine use — and helped to stop using these substances. Women with little formal education tend to be the heaviest smokers. Often they have scant knowledge about their own bodies. Yet pregnant women are highly motivated to understand aspects of physiology, nutrition, exercise, and stress that affect their own health and the baby's. Potential parents, moreover, need to be aware of serious hazards in the home, work, and other environments that can affect pregnancy outcomes. The prenatal period also provides an opportunity to identify the social and financial resources necessary for the further healthy development of mother and infant beyond pregnancy and delivery.

Those prenatal care providers regularly serving women at psychosocial risk should have a core set of services available within their practices. These services should cover psychological counseling, social work, public health nursing, nutrition, and health education in addition to the traditional primary care medical skills. Core services in a psychosocial risk program should include home visits, which have been shown to be effective in promoting many of the objectives of prenatal care; case management; and services to facilitate access to care, including

financial, transportation, and child care assistance. These services should promote early entry into care and facilitate assessment of the family environment. Waiting time prior to initial entry to care should be minimized, and the schedule of visits should meet women's needs through evening and weekend hours if necessary.

The educational component of prenatal care can be expanded to include a constructive examination of options over the course of life. For women at highest risk — who are poor, uneducated, or very young — the prospects for a positive change in life associated with the birth of a baby may provide the impetus to make other life changes. The desire to do well for their children can lead parents to job training, formal schooling, or other education likely to improve their families' prospects. Such life-enhancement activities may in the long run lead to improved outcomes for later children and perhaps even grandchildren.

For many women, particularly those at high risk for socioeconomic reasons, medical care and education need to be supplemented with social support. This involves a set of personal contacts through which the individual receives emotional support, material aid and services, information, and new contacts. It is difficult enough to teach a woman about nutrition if she does not have any money or access to food. If she uses or abuses drugs, this complicates matters considerably. To cope with such problems, social support for education and health can be organized as a systematic intervention, often involving community-based paraprofessionals.

Primary health care in the first few years

In 1989 a distinguished national group of health leaders surveyed the prospects for children's health in the City of New York, which offers a prototype of urban health problems across the land. The report of the Mayor's Commission on the Future of Child Health[2] in New York City describes the nature and scope of the health problems, effective models for coping with these problems, and useful steps to be taken in the 1990s to the end of the decade.

Key among the attributes of an effective, attainable child health system, according to the report, are the following:

1) the ability to link a pregnant woman with early, high-quality prenatal care and to register the child with a physician, preferably before the child is born;

2) assurance for every child of a continuing relationship with a physician or nurse practitioner who can provide complete primary care and who knows the child, the child's family, and the family background;

3) assurance of ready access to secondary and tertiary levels of care for complicated health problems; and,

4) the existence of community supports such as mental health services, day care, parenting education, family planning, and substance abuse programs — with convenient access through primary care to all these services.

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[2]New York City Department of Health. *The Future of Child Health in New York City.* A report of the Mayor's Commission. New York: New York City Department of Health, August 1989.

Ideally, the mother's first contact with a pediatrician begins before the child is born. The doctor can then help reinforce her understanding of the risks to the fetus of alcohol, tobacco, and drug use and discuss the benefits for the infant of breastfeeding. Immediately after delivery, the child's health status needs to be evaluated and the findings communicated to the parents. The attachment between mother and baby is fostered, and steps are taken to prepare her to cope with difficult episodes.

The most effective preventive intervention for health in infancy is immunization against the common infections of childhood. Most school-age children, largely because of mandatory immunization for school entry, are fully protected. Many preschool children are not, however. Less than half the number of poor and minority children under age four are fully vaccinated against preventable infections. One consequence of this in 1990 was a serious resurgence of measles.

In addition to immunizing children during infancy, pediatricians need to monitor the growth of infants. Growth monitoring can readily detect nutritional problems, as the United Nations Children's Fund has shown in very poor developing countries throughout the world. In this era of antibiotics, pediatricians can control infectious diseases before they do much harm — in marked contrast to the casualties of only a few decades ago. The prevention of injuries, the leading cause of death and disability among young children, must also be discussed with parents.

Pediatricians need to go beyond these medical interventions to provide well-informed guidance and emotional support, directing families toward healthy patterns of living, answering and anticipating questions about growth and development.

As the infant becomes a toddler, preventive care can help parents know what to expect. Many parents do not understand, for example, that the sometimes difficult behavior of a toddler most often reflects the acquisition of important skills. Other developmental needs of a child can be addressed, such as having a play area safe for exploration. The transition to out-of-home care and preschool education is also a suitable subject for preventive pediatrics.

Pediatricians are often in short supply, particularly in poor city neighborhoods and remote rural areas. To extend their reach they need to find ways of working effectively with pediatric nurse practitioners, home visitors, parent support group facilitators, and public health facilities. Models of such a system of outreach already exist and could be built upon to serve all the nation's children.

Child care in the first few years

In 1990 the National Research Council of the National Academy of Sciences published a comprehensive report on child care.[3] Prepared by a broad-based group of

[3]Hayes, C.D.; Palmer, J.L.; and Zaslow, M.J., eds. *Who Cares for America's Children: Child Care Policy for the 1990s*. Panel on Child Care Policy, Committee on Child Development Research and Public Policy, Commission on Behavioral and Social Sciences and Education. Washington, D.C.: National Academy Press, 1990.

experts and subject to scientific review for the highest standards of accuracy, this report gives a penetrating assessment of needs and opportunities for the 1990s.

The panel identified three overarching goals for an improved child care system: better quality, greater accessibility for all families, and enhanced affordability for low- and moderate-income families.

The most urgent needs are for organized programs for infants and toddlers, before- and after-school programs for the nation's estimated 2.1 million latchkey children, child care and preschool programs for children with disabilities, and comprehensive child development programs for economically disadvantaged children.

The panel reached seven general conclusions:

1) Existing child care services in the United States are inadequate to meet current and likely future needs of children, parents, and society as a whole;

2) a large number of children are now cared for in settings that neither protect their health nor offer appropriate developmental stimulation;

3) child care has become a necessity for the majority of American families irrespective of family income;

4) arranging quality child care can be difficult, stressful, and time-consuming, especially for low-income families; public policies therefore should give priority to the economically disadvantaged;

5) there is no single policy or program that can address the child care needs of all families and children;

6) responsibility for meeting the nation's child care needs should be widely shared among individuals, families, voluntary organizations, employers, communities, and all levels of government; and,

7) child care policies should affirm and support the role and responsibilities of families in childrearing.

One of the more important findings from research in this field is that the children from relatively poor families stand to gain more than advantaged children from their experience in child care centers, when the offerings are of high quality. The stimulating and supportive experience often opens doors for children whose family settings are inadequate.

Research findings of beneficial effects beginning with preschool and carrying over into the early elementary school years naturally stir curiosity about what constitutes high quality in child care. Can we extract the essential ingredients and heighten the efficiency with which the information is communicated — especially to parents who must choose among the available possibilities?

Overall, the best results for children's intellectual and social development are associated with centers that balance educational and playful activities, that provide uncrowded environments containing a variety of play materials, and that provide many different learning opportunities. The best results are also obtained with

small groups of children of both sexes who are not more than two years apart in age. Such settings promote cooperation, sharing, friendships between children, and a good relationship with the caregiver.

The caregiver is the crucial element in child care quality. Within fairly broad limits the ratio of children to caregivers is not as important as the behavior of the caregiver over time. Teachers who are actively involved with the children, who provide interesting materials, are sensitive and responsive to children's initiatives and interests, and combine encouragement with concrete suggestions tailored to the individual child meet the criteria of professionalism. Professionalism also incorporates staff training, explicit standards as to what constitutes care of high quality, and participation in a network of staff activities for mutual aid. With additional research on these issues, it will be increasingly possible to sharpen the criteria for high-quality child care and to find ways of meeting these criteria across a diversity of settings.

As more and more young mothers enter the full-time paid work force, they are inclined to place their infants in out-of-home day care. Studies that have examined excellent child care arrangements find that it is certainly possible for infant development to proceed in a healthy way under such conditions. Infants from a background of neglect who are placed in child care under favorable conditions have been shown to adapt more quickly and to explore more fully an unfamiliar environment. They tend to be more ready to play with peers, appear more confident in social situations, and are less fearful of unfamiliar adults.

Some recent studies of less-than-excellent child care, however, have found that infants placed in unstable and patchwork child care arrangements have difficulty forming secure attachments with their parents. Some scholars in this field doubt whether current day care options can provide adequate conditions for children in the first year of life. At present they would prefer that day care be deferred beyond infancy.

All this suggests a great need for more differentiated assessment of child care practices, including their quality, timing, relation to home environments, and kind and amount of parental participation. As a practical matter, in the absence of widespread policies of maternal and paternal leave, the trend is toward increasing infant day care. Clinicians and researchers therefore are working to develop effective modes and standards of dependable day care consistent with the promotion of normal, vigorous child development. Whatever the infant care arrangements may be, a child needs to have a continuing, unbroken relationship with at least one caregiver through infancy and into the childhood years.

Building parental competence

During the past two decades there has been an upsurge of innovation and assessment focusing on ways to strengthen the earliest building blocks of development, especially for poor children of young mothers. These interventions, some of which have been named, have aimed at enhancing the parents' capability in childrearing and providing constructive stimulation for the baby. They involve several patterns of organization: parent education; infant stimulation and support; home visitors;

nutrition education and supplementation; primary health care for mother and child; links to community services; and social support networks for young parents under stress. Such combined efforts occur in schools, day care centers, hospitals, health centers, and churches. They are conducted by people with diverse professional and paraprofessional backgrounds.

Home visiting services are often indigenous to the community. They engage child and mother in organized activities appropriate to the child's phase of development. Parent-child centers, similarly located, bring in the infants and parents for parent education and infant stimulation. The main thrust in both is to teach young mothers how to become effective teachers of their own children and to develop mutually beneficial mother-child relationships. Child and family resource programs provide services at the home and at a center, depending on the problem at hand. They deal more broadly with the health, education, and counseling of families with children from infancy to school age.

All these programs offer information on child development, activities to foster parent-child interaction, opportunities for parents to explore their concerns, and help with the problems of living. They build coping skills and connect parents with community resources that can strengthen family capability to maintain health and good nutritional habits, to find shelter, clothing, training, and employment.

Most community-based early intervention programs throughout the nation have been innovative attempts to respond to rather urgently felt needs. They have been straightforward service programs incorporating little or no evaluative research. Systematic assessment has been conducted on a few programs, however, which compare participating and control families from similar backgrounds. These latter are the most informative for our present purpose, although judicious reflection on the rich experience of unevaluated programs can also be useful.

The evidence to date indicates that community-based early intervention can beneficially affect a range of relevant outcomes including the personal development of young parents; their ability to use available community resources; the attitudes and behavior of young parents toward their children; and the healthy development of children. While the effects are not massive, they are constructive and fairly consistent. The strongest effects on parenting skills and knowledge — with at least moderately beneficial effects on child development — seem to come from programs that emphasize parenting skills in a deliberate and systematic way. Such interventions tend to have significant professional involvement in the program, even though much of the operation may rely on paraprofessionals.

Multiple services through home visiting

Home visiting can be a relatively efficient and effective way of addressing the multiple needs of poor families with young children. Competently performed, home visits provide an opportunity for one or two workers to engage family members in solving problems of housing, food, health, childrearing, child development, and family relationships. Researchers and policymakers are also beginning to see home visiting as a way to prevent premature birth, child abuse and neglect, and school failure.

Home visits afford the opportunity to instruct and motivate mothers, listen to them, observe them interacting with their children and other family members, and support them in their role as their children's primary caregiver and first teacher. Typically, a particular program uses home visits to tackle more than one problem.

Two rationales for providing such services on a regular basis to families are common: the parent is physically homebound, lacking a ready means of transportation, living in a rural area, or staying at home to care for a handicapped family member or several young children; or the parent is psychologically homebound, lacking social support and self-confidence, perhaps too depressed or preoccupied with family problems to keep appointments. Home visits may also be an effective way to provide services on a temporary basis — during a family crisis or other particularly stressful period. Examples of such crises include a pregnant, low-income mother with medical complications; the arrival at home of a frail premature baby; and the imminent threat of foster care placement.

Home visits can be an effective way to teach parenting skills to high-risk families who suffer from multiple stresses and even clinical depression. Such families are the least likely to come to health clinics for prenatal care or well-baby checkups, to participate in parent education classes, to attend parent support groups, or to seek quality preschool programs for their children. They are at relatively higher risk of abusing or neglecting their children.

Research evaluations of home visiting programs show positive effects on health and well-being, especially for adolescent mothers and their families, low-income families, and rural families. Outcomes include lower rates of small-for-gestational-age and low-birthweight babies, better health at birth, fewer accidents in the first year of life, higher rates of immunization, lower reported incidence of child abuse and neglect, and improvements in cognitive performance. Benefits can persist over time, as demonstrated by the Perry Preschool Program in Michigan and the Yale Child Welfare Research Program, both of which included considerable home visiting.

Program effectiveness is related to certain key features of program design. These features include clear and realistic objectives with articulated programs and expected outcomes; a well-defined target population with identified service needs; a plan of structured services designed specifically for the target population, having defined activities with a sequenced plan for instruction; trained visitors with skills that match the program's objectives; supervision and support for visitors; links to other community services; a supportive parent agency; systematic evaluation to document program process and outcomes; and ongoing funding.

CHALLENGES FOR IMPLEMENTATION

No single intervention is a panacea, but many are useful and their articulation is important, especially in spanning the main years of growth and development during childhood and adolescence. Valuable ingredients of such a continuum in the earliest years are enriched prenatal care, preventive pediatric care in infancy, high-quality day care, parent education, social supports, and preschool education.

A number of issues must be addressed in implementing or expanding such interventions. How can we translate scholarly research into practice? Do we need a new institution for young children, or can we expand services for young children by building on existing institutions such as schools, the health care system, and community agencies? How can we better coordinate services that are now fragmented across different bureaucracies? How can professionals with different training and cultures learn to cooperate to serve families?

In principle, the fundamental point of entry for interventions that could be helpful in the crucially formative first few years of life would be early prenatal care for both parents. This means not only preparation for pregnancy, labor, and delivery, but also preparation for parenting and indeed for further life choices. Such an approach implies a combined health, parent education, and early childhood center.

A promising trend at present is for agencies to coordinate their services in a way that makes sense to people who most need them. If services that are now fragmented can be brought together in one accessible site, fine. If not, then all relevant, practical *information* about children's services and opportunities needs to be brought into one visible, attractive site. In either case, young children and their parents usually need guidance in mapping the territory — figuring out how to get the help they need. Case managers are a response to this problem, a way of coping with the all-too-often bewildering array of locations, procedures, forms, strange terms, and not-so-friendly people.

It should be possible in the foreseeable future to design interventions that go beyond what has been possible up to now. There are several bases for this optimistic view. First, we can utilize the experience of interventions so far undertaken. Second, we can draw out the implications for intervention strategies of child development, child health, and educational research. These bodies of knowledge and experience can help us construct informed models for intervention. In doing so, we must centrally ask questions of effectiveness. What works? What is worth doing? If terrible suffering can be relieved, if grievous loss of talent and life can be corrected, then surely ways can be found to make the necessary interventions feasible.

It is a great challenge for foundations to stimulate this transformation. At the end of 1990, Carnegie Corporation decided to undertake a new initiative — building on its substantial experience in this field — to achieve a broad, science-based understanding of ways in which healthy child development in the first three years can be fostered under today's circumstances. The centerpiece of this effort will be a Carnegie report, prepared by a distinguished group of leaders in a variety of sectors. The report will clarify the essential requirements for healthy early child development and the principal opportunities for meeting these requirements. Our aim will be to illuminate a developmental sequence of experiences likely to achieve good outcomes and ways of accomplishing this sequence under contemporary American conditions.

We cannot lose sight of the fact that wise investment in human capital is the most fundamental and productive investment any society can make. Constructive development of our people is more important than oil or minerals, office buildings

or factories, roads or weapons. The central fact is that all of these and much more depend in the long run on the quality of human resources and the decency of human relations. If these deteriorate, all else declines. So the developmental sequence of opportunities in education, health, and the social environment sketched here have a direct bearing on the kind of future we will have.

David A. Hamburg

President

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